

Factors Affecting Client's Involvement in Construction Projects

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Abstract

The client has a great influence on construction activities, which will decide the success or failure of a particular project. Hence, the client's goal is to attain the desired outcome through good design, good planning, and good construction. It has been suggested that success in construction projects is attributed to the knowledge and skills of the client. The client's perception of their role affects their decisions making capabilities in the early project phases. Furthermore, clients needed to understand the entire desired quality requirements to ensure full satisfaction. The client, as project owner has to ensure that the project is undertaken in a manner such that all risks are minimized. When clients are close and frequently participating in managing a project they are mostly pleased with the outcomes. Therefore, clients are considered to be the energetic force in the construction sectors as well as a central to the construction projects. The improvement in low client participation in construction sectors is necessary to enhance the client finding the ideal blend of performance. Therefore, it is significant to recognize the attributes which reduces the client participation in the construction sector so that efforts can be taken to mitigate this important concern. Hence, this paper presents a systematic review to gain a better picture of the factors affecting client involvement in the construction sector in Sultanate of Oman and thereafter proposing the appropriate recommendations for active engagement of clients in projects.

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1. Introduction

It is almost inevitable for a construction project not to be faced with at least one complex situation which could lead to undesired project outcomes, thereby leaving clients dissatisfied with its overall performance ([1], [2]). As a result, construction companies strive to keep their customers satisfied as this signifies the customer retention and loyalty [3]. Client satisfaction is the extent to which perceived quality matches his expectation [3]. Reference[4] indicated that although construction projects are unique, they are all made up of many people with diverse interests. Reference[5] concurs with that finding as he emphasized on the uniqueness of construction

projects and further noted that the construction process entails very complex processes that hardly ever go according to the planned program. However, clients wish for a riskless, low cost, good quality project that is completed within the desired timeframe ([6], [7], [8],[2]). Reference[9] affirms that clients are under stress to deliver projects within shorter time frames and allocated budget. Sadly, the construction industry seems to be underachieving, with less or no profits, and little being done to remedy the current situation [10]. This seems to be influenced by the absence of clients' understanding of the project constraints which may affect the main contractor's performance on a project ([11], [2]).

2. Clients Defined

A client is an organization or a person who benefits from having a project that is designed and built, and pays the price of construction ([2], [12], [5]). In another perspective, client is the project originator who has the responsibility for the production related to any project [13]. We also could portray client an individual or an organization who obtains the necessary services through a contract with other parties to start the execution and to complete a project with acceptable satisfaction to all in needs [14]. Clients are motivated by different factors to have a project constructed for them such as, for example, an individual might be seeking to build their home, or a municipality responding to demand, or an investor seeking to make money [14]. Whatever the inspiration, a construction project is a straight reaction to a client need. Reference [15] indicated that one fact that cannot be over observed is that clients, through their skills and knowledge can seriously affect the success of the construction sector. Clients can possibly affect the accomplishment of the project, and the significance of briefing to the achievement of client satisfaction, it must be noted the nature of the client and its association of problem areas of the project [2].

There are problems relating to the client organization as well as the experience level of the client. Most of these problems are related to the lack of understanding of the construction process by clients which poses as a threat to successful project delivery [16] and client interference which is an interruption to project success ([17], [2]).

3. Client Categories

It is important to classify and clarify the type of client so that construction professionals will be alert to the appropriate actions to be taken throughout all the project stages ([2], [18]).

Clients can be categorized according to:

A. Public or Private

1) Clients related to public sector

Construction is funded using public money either from state or local sources ([2], [19]). Reference [20] divided this sector into national and local. Since this sector represents the public, the construction process follows specific procedures reference [19] and rigorous administrative and financial controls in an effort to eliminate the occurrence of fraud and corruption, and all procedures are subject to annual audits [21]. As is the case in most parts of the world the public sector is the major client of the construction industry ([22], [20]). It plays a substantial role in providing funding for basic infrastructure which enhances economic activities, such as creation of jobs, and it provides affordable housing [23]. On the down side, the public sector has been heavily criticized for its inadequacy in project delivery, leading to time and cost overruns ([24], [2]).

2) Clients related to private sector

Private clients can be further subdivided into private home owners and private commercial [13]. Reference [20] subdivided this sector into industrial clients and services clients.

It is imperative that private clients understand the design, procurement and construction processes, as this can contribute to client satisfaction [13]. A study conducted by [24] found that client satisfaction is a key determinant of client loyalty and repeat business in the private sector.

B. Primary or Secondary

1) Primary Clients

The type of clients have their incoming originated from constructing sectors, such as a property developer ([2], [21]).

2) Secondary clients

These are the buildings users that house their trades such as manufacturing companies ([2], [21]).

C. Knowledge level or Experience

1) Experienced Clients

This type of client has understood and detailed knowledge of the construction process with the ability to prepare a comprehensive and clear project brief [14]. They have the ability to contribution and impact the consultant team on project matters and construction ([2], [21]). Experienced clients have the desire to be involved throughout the project cycle, and because of their experience the hardly ever hinder other project stakeholders from efficiently and effectively performing their roles [14].

2) Partially Informed Clients

Reference [14] described partially informed clients as those who have procured a few projects or have very slight familiarity of the construction practices.

3) Inexperienced Clients

These generally have low levels of knowledge, skill and understanding of the practices and techniques of the construction sector ([2], [14]). Therefore, they take their advice from their consultants specialist [2]. They are also easily influenced by external parties other than their advisors [14]. Infrequent or inexperienced clients tend not to fully realize the significance of their roles and this lack of understanding poses as a risk to successful project delivery [14].

D. Frequency of Commissioning of Construction Work

Great importance has been put on the frequency with which a client commissions for construction projects rather than in which sector they operate [24].

1) Once-off Clients

This type has little or no familiarity of the construction sector by their nature, and they have less understanding of the operation of the construction and the significance of

their role in certifying project success and depend on an advice from qualified consultants [2]. Reference[26] argues that most literature associates clients with being only once-off clients and this assumption inaccurately reflects the reality of many construction clients. Client's ignorance towards the construction process poses greater risks for the delivery of their projects [16].

2) Regular/Frequent Clients

This client type obtains projects on a regular basis ([2], [20]). The majority of clients usually have large on-going construction cases rather than once-off projects ([25], [26]).Reference[16] on the other hand, have argued that frequent clients constitute a small proportion of all the industry clients. Frequent clients are more likely to have invested in their capacity to fulfil their role, thus delivering benefits both for themselves and their contractors [25].

Regular clients expect continuous improvement from both their consultant team and the contractor so as to attain cost and time reductions [24]. This improvement is achieved through the establishment of longer-term relationships with the construction team through 'framework agreements', where for example, "contractors (initially selected by competition) are on a 'framework' for a set time, during which they are assigned a number of construction projects in succession.

4. Clients Involvement and Their Roles on Construction Projects

Success in the construction sector is credited with the skills and knowledge of the client ([2], [25]). Clients play an essential role in construction projects by determining the project outcomes, and these construction roles often vary depending on the each stage of the project and on the procurement systems followed [27]. Reference[28] indicated that client's awareness of their role affects their judgments making skills in the early project phases. Moreover, clients needed to recognize the entire anticipated quality as customer's satisfaction [29]. The client, as project owner has to confirm that the project is undertaken in a manner such that all risks are minimized [30]. It is essential that construction clients should understand their roles to ensure prompt delivery of projects [11].Reference[31] in their study, found that when clients were closely and frequently participating in managing a project they were mostly pleased with the outcomes. Reference[27] divided client roles into primary roles and secondary roles. They opined that all clients ought to perform the primary roles at some stage within the project cycle and they identified nine of these roles such as,development of the procurement strategy,procurement initiation, preparation of the project brief, selection of the procurement method, development business case, risk management, tendering and award, performance management, and change control. Reference[32] on the other found 12 important client directions / roles for improving the project outcomes. All

client actions and decisions at various stages of the project will impact either positively or negatively on the project [32]. Reference ([13], [33]) agreed with the view point that the client's actions have a big impact on a contract as they influence on the outcomes of the project. It is of great importance that clients implement their roles efficiently and more effectively at the correct time, at the same time utilizing the right methods to have their optimum participation across entirely the construction project stages [33]. To achieve successful project outcomes, client involvement should increase as project complexity increases [33]. The client's ability to make decisions affects the construction process [34], and the extent of authoritative decision making determines the project outcome [13]. Likewise, clients that are either indecisive or require input from a third party regarding decision making may inhibit the prompt delivery of projects [13].Client roles and the extent of their involvement changes depending on the project phase [27]. The low degree of the acceptable client participation in their projects has been associated with several problems come across throughout the project cycle such as cost and time overruns, and disputes ([33], [35]). Reference[36] indicated that clients play a key part in successful projects. Therefore, Clients are considered to be the energetic force in the construction sectors as well as a central to the construction projects. The right outcomes during the construction project phases heavily influenced the successful execution of a construction project. Many researches on developing countries classifies problems associated with ineffectiveness in the project deliveries ([37], [38], [39]) the absence of actual progress in attainingorganizational performance and management, and low productivity [40]. Moreover, making decisions and managing project activities are very complex, concerning the coordination of individuals and many tasks with different priorities and objectives. Furthermore, as the project procedure most of the time is a long-term process which needs effective participation of the all parties in the project with adaptable guidance. Taking the correct decision throughout the construction project is actually measuring the degree of client participation. Client carries the project to achieve his expectation. Consequently, acceptable outcomes is a result of good participation with taking the right decision based on sufficient knowledge and information, and fitting skills to use those information and knowledge.

Reference[41]indicated that the weight of the client's experience in general, effects the entire client involvement procedure. Hence, making good and timely decision during the construction phases is not an easy task as taking decisions in the construction activities are extremely multifaceted in nature and that is due to a numeral of issues, it can be in construction procedure or in management.

Thus, [42] indicated that it can be helpful recognizing the factorsaffecting project success and cause project failureand study them to analyse the possible

reasons for project either success or failure. Reference[43]approached a conceptual design related to a project management to create the performance approach which subsidizes to the achievement of a successful project and enables effective client participation, which categorized a project into three common segments (input, process, and outcome) as well as two main fields (the process field and performance field). The process field works entirely with the construction project stages, starting from the begging of the project towards the last stage of the project. These stages of the project in the process field are mainly supported on the other hand by the performance field which comprises setting up the wanted goals of the project as well as the performance scheme. Accordingly, evaluating the client performance during the project phases and concentrating on client participation in projects will rise up the quality expected towards the project delivery. Reference([44], [45])indicated that suffering of poor design and construction performance in project delivery has been for a decade. The client mostly has a great influence on construction activities, which will control mostly success or failure of the project's. Hence, the client's goal is to attain a great quality capability through good design, good planning, and good construction.

The client always has three common hopes for project delivery: firstly finished on time; secondly low cost; and the third expectation is achieving high quality [46]. The client should consider the three important parameters time, cost, and quality in order to plan and manage a project successfully. As mentioned by [47] neglecting one of those three parameters will have an effect on the other two factors. Thus, in order for the clients to reach their expectations towards project delivery they have to get all these elements in the right balances. Reference [48] highlighted the importance of the client role. It defines the degree of influence the client has towards the delivery of any construction project, and that has a control in several cases on the success or failure of the project. Consequently, the client participation in the initial stages creates an early stage of the construction process and links the client with the project [49].

Appropriate and effective participation of clients in their project effects decent outcomes, also the level of their participation is affected by taking the correct decisions at suitable project stages [33]. Linking between poor project outcomes and ineffective involvement of project participants (clients included) is suggested by [39]. Effective client participation in their project involves flexible observation all over the project phases [33]. Moreover, to raise the efficiency of client participation in their projects, big emphasis should be given to team contributions over the construction practice, such as for example the exchange of ideas [33]. Since clients have a great level of influence to effect project outcomes, therefore it is important to focus more on their participation in projects as this will help to increase the overall project quality [48]. Clients should

have acceptable skills and knowledge of the construction process in order for them to be efficiently and effectively participated in their projects [33]. Since construction projects are faced with numerous complex situations affecting project success[1], effective client participation has been known as one of the solutions to improving construction sector performance [20].

Reference[50] described the effectiveness as the level of accomplishment of project intents. Effectiveness has been stated to as project success. Reference[51] discussed that effectiveness includes the measures of user satisfaction and attainment of project objectives, as well as the use of the project. In General, effectiveness is described as doing the correct thing [51]. Referring to all those definitions, effectiveness of client participation in their projects measures the level to which their participation effects the outcomes of the successful projects. Effectiveness of client participation refers to measuring the achievement of a project success as a result of client participation.

5. Factors Affecting The Client Involvement

Construction projects nowadays have greatly high congested and complex ([43], [35], [34], [52]). The team of construction project faces in-going changes in the project. Increases in uncertainties in budgets, technology as well as development processes have been faced the construction sector. Similarly important, ([20], [36], [53]) indicated that client participation in the construction project has recognized as a significant influence in improving construction project performance.

The improving of the situation of low client participation in construction sectors is behind the need to enhance the client participation and find the ideal blend of performance, scheduling, maintainability, constructability, cost and safety consciousness, environmental awareness.

To take the construction sector forward it is important to understanding the clients' attitudes and actions [20]. Reference[54]stated that guiding and shaping behaviour are through organizational culture. Hence, it is significant to recognize the controlling influences that reduces the client participation in the construction sector so that efforts can be focused on those issues in order to minimize them as possible ([42], [43], [53]).

6. Individual Factors and Project Factors

The client is a main key and the participation of the client in the construction activities is truly a significant issue with the degree of construction project performance ([20], [36], [53]). Hence, the inspiration of the client to be a substantial influence in construction sector successful performance [55]. Studying the clients' attitudes is censoriously central for construction specialists in jointly taking the construction sector onward.

The client attitude consider as a trend to react in a positive or negative approach during the carrying out of the project. The absence of knowledge of the client sits down from the failure to a achieve a satisfactory facts before beginning the project or misconstrued the entire necessities of the original scope of the project. Furthermore, clients are most of the time very are not ready to seek advice from others and their decisions based on “educated guesses” sometimes. Reference[34] mentioned 44 factors have an effect on the construction sector. Those attributes which are associated with client as individual factors contain: The client nature, the client’s ability and experience, client’s organisation size, the emphasis of client’s on time, quality and cost, the contribution of the client to the project, the factors related to the project such as the project complexity, the size of the project, and project nature, absence of information, habitual thinking , wrong beliefs, , hesitancy to ask for advice, negative attitudes , time pressures, , and poor human relations, technology, time pressures, and the project team members poor coordination, the client’s absence of knowledge, degree of experience, level of knowledge on technology, and communication level and the client ability to operate under the project pressurecomplexity, size of the project, and project nature.

Reference [56] indicated that greater experience resulting in greater knowledge and skills and there is a positive connection between performance and seniority.

There is no clear way for the project team to the client when the client has poor experience which leads to poor project outcomes. Thus, the clients should have a high degree of experience. The impact of the experience of project management knowledge and the skill level being applied through the project. Reference [41] indicated that clients with a degree of experience have more level of project tools knowledge, techniques, and methods to well manage projects .The client outcomes are affected by technological change which consider as another influence touching the client outcomes. The rapidly changes in technology are in the products materials as well as the development of processes.

Hence, no one can be expectable to have fully present knowledge in his field. Reference [58] stated that the absence of knowledge on project management or technology amongst clients might be enhanced by attending a conference, going through training courses, or gaining a specialized certificate associated with construction projects. Reference [57]indicated that clients needed to advance their skills in the ability to work under high pressure in a difficult atmosphere and improve their communication skill and should understand well how communication practices work.

Reference [59]indicated that clients should recognize how to make the most of the possible advantages of communication and how to reduce the possible problems expected.

7. Organisational Culture Factors

Culture has become a common topic of interest, research and discussion within the construction sector over the last decade. The organizational culture provides identity to any organization. Before running intensely into the significance of organisational culture, and its impact on client participation and project activities, it is required to be familiar with the conception of organisational culture. Organisational culture be blessed with certain significant purposes. It improves the solidity of an organisation [60]. Organizational culture is the key that can shape and guide behaviour [54] so it has a significant positive influence on persons within the organisation [60].

The organizational culture is a set of standards that guides the employees to recognize what organizational viewpoints, what it consider important, and how it does things. These standards are set to encourage the employees in such a way which is helpful for both the employers and employees. Project management also influenced by the organisational culture. Turnover of the project management can be a result of frustration with organisational culture [61]. Some studies looking forward to find the link between performance and organisational culture have been stated ([62], [63], [65]).

The application and improvement of organisational culture give an organisation culture a chance to raise up performance, but disappointment to use the organisational culture will lead to loss the organization [62].

There are eleven key mechanisms recognized by [62] of organisational culture that assistance to raise the employees’ execution: (1) founding organisational objectives and goals and; (2) the satisfaction of the employees in the function set by the firm; (3) the employees’ stand towards any modification in the objectives; (4) the level of roominess in supervision communication, as well as information distribution among project members; (5) the level of roominess in supervision and communication; (6) the commitment between the organisation and employees; (7) enhancing the trust and reducing the conflicts between the project members; (8) the employees’ participation level in the making process decision; (9) standards and values establishment that have success contribution; (10) supporting values in a well environment; and (11) recognising a good performance through a rewarding scheme. There are seven features give a good picture of where an organisation culture stand[64]. These characteristics are as per following : (1) giving attention to details, (2) risk-taking and innovation, (3) orientation of the outcome , (4) orientation of the team, (5) orientation of the people, (6) stability, and (7) aggressiveness. Paying Attention to details refers to the level to which employees are predictable to display accuracy, attention and analysis to detail. Risk-taking and innovation refer to the level to which the encouraging of employees is to towards risk-taking and innovation. The orientation of the outcome refers to the level to which the

focusing of management on outcomes or results, more than focusing on the procedures used to attain these outcomes. The orientation of the team refers to the level to which the activities of job are structured around teams rather than around individuals. The orientation of the people refers to the level to which the decisions of management take into attention their influence on people. Stability refers to the level to which activities of the organisational emphasise sustaining the position rather than growth and change. The aggressiveness relates to the level to which people are competitive and aggressive, more than easy going. Denison Organisational Culture Model developed by Reference [66] to assess the culture of organisations. This model is built upon four characters that have been showing a strong effect on organisational performance: (1) consistency, (2) involvement, (3) mission, and (4) adaptability. Each characteristic is measured further by three indicators in total of 12 indicators. Reference [67] found out through using the model developed by Denison (Denison Organisational Culture Model) to measure the culture of contractors in Hong Kong that not all the characteristics proposed by [66] had significant positive special end result of the contractors' performance.

Reference [60] linked the construction project management and organisational culture with involvement in his discussion. He utilized the findings from former organisational culture models and used them to identify the construction organisational culture. Cheung et al., recognized seven groups of organisational culture influences. He determined that the presence of a powerful culture in an organisation will lead to a better feeling for the staff and eventually will have a better performance, and all that will increased the commitment between the staffs and make a closer alignment on the other hand with organisational goals.

8. Conclusion

It is substantial to categorize the main factors that lead to low degree of client participation in construction projects to focus on those elements in order to advance the current practices. The contribution of the client's is critically significant for the construction process to take the construction sector forward. The article has found many factors affecting the client involvement in construction projects dividing to individual factors, project factors, and organizational culture factors. Further study using quantitative and qualitative approaches will be conducted to find out which factors affecting more the involvement of clients in construction projects in Oman to enhance the participation of clients in construction projects in Oman. Therefore, SEM will be used to develop of a decision making framework for guiding client's involvement towards project performance in Oman public projects to improve the construction project delivery through enhancing the client's participation in the projects using

mathematical model and identification system to reach to the optimum outcomes.

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